pepco Energy Services

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July 1, 2013

Ms. Ingrid H. Hopkins
Water Protection Division (3WP42)
US EPA – Region III
1650 Arch Street
Philadelphia, PA 19103-3029
(215) 814-5437
hopkins.ingrid@epa.gov

RE: Benning Road Generating Station – NPDES Permit No. DC 0000094
Metal Excursions– Outfall 013Q

Dear Ms. Hopkins,

This letter is a follow-up to the June 26, 2013 telephone notification, made on behalf of Pepco Energy Services, Inc. by Ms. Heather Brinkerhoff of HB Consulting LLC., to report daily maximum copper, iron and zinc excursions from a storm water grab sample taken on June 6, 2013 from Outfall 013.

On June 25, 2013 Ms. Brinkerhoff received the laboratory analysis indicating that the daily maximum concentrations for copper, iron and zinc were exceeded. Ms. Brinkerhoff made the required telephone notification to the US Environmental Protection Agency (EPA) in accordance with NPDES permit condition VI.6.

The results of the laboratory analyses for copper, iron, and zinc are shown in the following table:

Analyte	Units	Permit Limit Daily Max	Results
Copper	ug/L	13.44	44
Iron	mg/L	1.0	1.1
Zinc	ug/L	117.18	190

As discussed in our prior correspondence, on July 19, 2010, the facility submitted a TMDL Implementation Plan to EPA as required by the facility's NPDES permit. The TMDL Plan provided information on past, current, and planned activities at the facility to meet the required load reductions for the Anacostia River TMDLs for metals. EPA approved the plan and the facility completed the implementation of Phase I (inlet maintenance) and Phase II (metal management) control measures as of December 2012. This included installing metal absorbing filter guards in storm drains throughout the

facility; installing sediment removal and oil absorbing booms around storm drain inlets; and removing or covering stored metal and equipment exposed to the weather.

In February 2013, AMEC, our environmental consultant assisting with the implementation of the TMDL Plan, calculated the percentage reduction of pollutant concentrations in storm water discharges from Outfall 013 based on the analytical results of the first quarter 2013 storm water sampling. The storm water samples were collected in January 2013 following the completion of Phase I and Phase II control measures. AMEC's calculations showed a significant decrease in metal concentrations in storm water discharges from Outfall 013 compared to baseline concentrations. Specifically the following percent reductions were obtained: Cadmium – 100%, Copper – 73%, Iron – 84%, Lead – 77%, and Zinc – 87% (see Attachment 1). This analysis was submitted to EPA along with the February 2013 DMRs.

Unfortunately, concentrations of copper, iron, and zinc in the June 2013 were higher than for January 2013 sample, although they were still well below the baseline concentrations, which confirms that the measures already taken have been effective to reduce metals loading to storm water discharged from the site. The June 2013 concentrations also reflect baseline percentage reductions that continue to meet the pollutant load reduction requirements under the Anacostia River TMDL.

We have not identified any specific reason for the June 2013 permit excursions, or the increase in concentrations from January 2013, although we are continuing to investigate possible causes. We are also evaluating additional measures to further reduce pollutant concentrations and to help achieve consistent compliance with the permit limits. The next step includes implementation of Phase III control measures as identified in the TMDL Plan (i.e., installation of additional LID structures).

Please contact me at (703) 253-1787 or by electronic mail at mwilliams@pepcoenergy.com if you need additional information.

Respectfully yours,

Michael V. Williams

Michael V. Williams
Power Plant Asset Manager
Pepco Energy Services, Inc.

Benning Generating Station
Pollutant Load Percent Reduction
Washington, DC

February 27, 2013

Outfall	Parameter	Sample Date	Units	Concentration (mg/L) (a)	Average Flow (cfs)[2]	Load (mg/s)	Maximum Daily Limit (mg/L) (a)	Baseline Concentration (mg/L)	Source of Baseline Concentration[7][10]	Average Baseline Flow (cfs)	Baseline Load (mg/s)	Pollutant compared with Maximum Daily Discharge Concentration[7]	Pollutant Concentration compared with Baseline Concentration [8]	Pollutant Load compared with Baseline Load [8]
013Q	TSS	1/14/2013	mg/L	11	0.892	278	100	42	Highest TSS discharge concentration from DMR data. Quarterly stormwater DMR data for Oct-Dec 2010. TSS was not reported on DMRs prior to Jul-Sep 2009. Flow was measured in October 2010.	4.82	5732	89%	74%	95%
013Q	Cadmium	1/14/2013	mg/L	<0.00050	0.892	0.0[1]	0.00495	0.00075	Highest cadmium discharge concentration from DMR data for Outfall 013Q. Quarterly stormwater DMR data for Jan-Mar 2006.	7.48	0.16	100%	100%	100%
013Q	Copper	1/14/2013	mg/L	0.017	0.892	0.43	0.01344	0.064	Highest copper discharge concentration from DMR data for Outfall 013Q. Quarterly stormwater DMR data for Jul-Sep 2006.	3.14	5.68	-26%	73%	92%
013Q	Iron	1/14/2013	mg/L	0.94	0.892	24	1.00	5.80	Highest iron discharge concentration from DMR data for Outfall 013Q. Quarterly Stormwater DMR Data for Jul-Sep 2007.	0.148	24.31	6%	84%	2%
013Q	Nickel	1/14/2013	mg/L	0.029	0.892	0.73	0.117[5]	0.056	Highest nickel discharge concentration from DMR data for Outfall 013Q. Quarterly Stormwater DMR Data for Jul-Sep 2007.	0.148	0.23	75%	48%	-212%
013Q	Lead	1/14/2013	mg/L	0.0053	0.892	0.13	0.06458	0.023	Highest lead discharge concentration from DMR data for Outfall 013Q. Quarterly stormwater DMR data for Jan-Mar 2006.	7.48	4.87	92%	77%	97%
013Q	Zinc	1/14/2013	mg/L	0.12	0.892	3.03	0.11718	0.9	Highest zinc discharge concentration from DMR data. Quarterly stormwater DMR data for Apr-Jun 2005.	5.15	131.25	-2%	87%	98%
013Q	PCB-1242	1/14/2013	mg/L	<0.0001	0.892	0.0[1]	No Discharge	0	Quarterly DMRs for Outfall 013Q. PCB Aroclors were not detect from 2005 to 2010.	NA[9]	0[9]	0%	0%[3]	0%[3]
013Q	PCB-1254	1/14/2013	mg/L	<0.0001	0.892	0.0[1]	No Discharge	0	Quarterly DMRs for Outfall 013Q. PCB Aroclors were not detect from 2005 to 2010.	NA[9]	0[9]	0%	0%[3]	0%[3]
013Q	PCB-1260	1/14/2013	mg/L	<0.0001	0.892	0.0[1]	No Discharge	0	Quarterly DMRs for Outfall 013Q. PCB Aroclors were not detect from 2005 to 2010.	NA[9]	0[9]	0%	0%[3]	0%[3]
Manhole K	TSS	1/14/2013	mg/L	41	0.07	81.27	Monitor Only	41	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	258.90	NA	0%	69%
Manhole K	Cadmium	1/14/2013	mg/L	<0.00050	0.07	0.0[1]	0.0045[6]	0.0012	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0.01	100%	100%	100%
Manhole K	Copper	1/14/2013	mg/L	0.045	0.07	0.09	0.0134[6]	0.093	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0.59	-236%	52%	85%
Manhole K	Iron	1/14/2013	mg/L	1.9	0.07	3.77	Monitor Only	3.8	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	24.00	NA	50%	84%
Manhole K	Nickel	1/14/2013	mg/L	0.03	0.07	0.06	0.117[6]	0.09	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0.57	74%	67%	90%
Manhole K	Lead	1/14/2013	mg/L	0.037	0.07	0.07	0.0645[6]	0.13	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0.82	43%	72%	91%
Manhole K	Zinc	1/14/2013	mg/L	0.16	0.07	0.32	0.117[6]	0.57	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	3.60	-37%	72%	91%
Manhole K	PCB-1242	1/14/2013	mg/L	<0.0001	0.07	0.0[1]	No Discharge	0.0[1]	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0[9]	NA	0%[3]	0%[3]
Manhole K	PCB-1254	1/14/2013	mg/L	<0.0001	0.07	0.0[1]	No Discharge	0.0[1]	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0[9]	NA	0%[3]	0%[3]
Manhole K	PCB-1260	1/14/2013	mg/L	<0.0001	0.07	0.0[1]	No Discharge	0.0[1]	Third Quarter 2011 DMR for Manhole K.[4] Flow was measured in November 2011.	0.223	0[9]	NA	0%[3]	0%[3]
Outfall 202	Cooling towers have been decommissioned and sampling has been discontinued.													
Outfall 203	Cooling towers have been decommissioned and sampling has been discontinued.													

Sources:
(a) Microbac, 2013. First Quarter 2013 Analytical Results. Microbac Laboratories, Inc.
(b) USEPA, 2009a. Authorization to Discharge Under the National Pollutant Discharge Elimination System Industrial Permit Number: DC0000094. United States Environmental Protection Agency. Effective July 19, 2009.

Prepared by: LRP 2/27/13
Checked by: MHA 2/27/13

Notes:
c% - cubic feet per second
NA - Not applicable.
NR - Not Reported

[1] Pollutant concentration was not detected. Concentration used in pollutant load calculation is set to zero.
[2] Flow was measured when samples were collected.
[3] Not required by 2009 NPDES Permit for Benning Generating Station.
[4] Data from the September 5, 2011 sampling event for Manhole K was established as the baseline load because it was the first sample collected after Manhole K was retrofitted. The retrofit was performed so that a representative sample could be collected from Manhole K. Flow was estimated based on the storm intensity and catchment area.
[5] No maximum daily limit is listed. Value is the Maximum Daily Stormwater Discharge Concentrations Goals for Metals listed in Section VIII.E of the 2009 NPDES Permit for Benning Generating Station.
[6] Manhole K has no maximum daily limit for the constituent and is monitoring only. Value listed is the Maximum Daily Stormwater Discharge Concentrations Goals for Metals listed in Section VIII.E of the 2009 NPDES Permit for Benning Generating Station.
[7] Positive values indicates that the January 2013 concentrations are lower than the maximum daily limit for the pollutants.
[8] Positive values indicate that the January 2013 concentrations/loads are lower than the baseline concentrations/loads.
[9] There were no detections of PCB Aroclors. Therefore, a baseline flow was not established. However, given that the concentration of PCB Aroclors is zero, the load is also zero regardless of flow.
[10] Baseline concentrations are based on the highest concentration listed on DMRs for Outfall 013Q from 2005 to 2007. TSS was not reported on DMRs until 2009. Therefore, the baseline concentration for TSS is from the highest concentration listed on the Jul-Sep 2009 to 2010 DMRs for Outfall 013Q.